



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,883	02/19/2004	Wesley.D. Rogers	2318.0013C	9058

27896 7590 04/11/2007
EDEL, SHAPIRO & FINNAN, LLC
1901 RESEARCH BOULEVARD
SUITE 400
ROCKVILLE, MD 20850

EXAMINER

NGUYEN, KIM T

ART UNIT	PAPER NUMBER
----------	--------------

3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

14

Office Action Summary	Application No. 10/780,883	Applicant(s) ROGERS, WESLEY D.	
	Examiner Kim T. Nguyen	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/19/04 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed on 12/21/06 has been entered. By this amendment, claims 1-30 are now pending in the application.

Claim Objections

1. Claims 1 and 17 are objected to because of the following informalities:
 - a) In claim 1, lines 11-12, the claimed limitation "an object" should be corrected to "the object".
 - b) In claim 17, line 3 of limitation (d), the claimed limitation "an object" should be corrected to "said object".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-4, 7, 10-20, 23 and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knox et al (U.S. Patent No. 5,067,718).**

Re claim 1: Knox discloses a device 10 (Fig. 1) for measuring a property of a surface comprising a housing 12 (Fig. 1) with a passage 24 (Fig. 1) defined therein; a plurality of detection units 26, 28, 30 (Figs. 4 & 5) disposed within the passage to

detect traversal of the passage by an object 22 (Fig. 2) directed therethrough; and a control unit (e.g. control system in col. 5, lines 44-45) disposed on the housing and coupled to the detection units (Fig. 5) to determine a deceleration of the object through the passage due to the surface (col. 9, lines 19-26; and col. 10, lines 5-6), wherein the control unit includes a processor 84 (Fig. 5) to determine the deceleration in accordance with detections from the detection units and to produce based on the deceleration a resultant measurement value (e.g. average velocities measured between the two beams, constant acceleration for a given surface and the distance traveled by the object) indicative of the surface property and in relation to a predetermined scale (Fig. 5; col. 8, lines 66-67; and col. 9, lines 1-23), wherein the resultant measurement value pertains to a total distance the object travels on the surface in response to an initial predefined reference velocity (col. 6, lines 56-68; col. 7, lines 1-52; and col. 9, lines 5-24); and a display 70 (Fig. 5). Knox does not explicitly disclose displaying the resultant measurement value. However, Knox discloses displaying the average speed of all putts (col. 5, lines 13-14) and Knox further suggests that other types of information may be displayed (col. 5, lines 17-28). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to display the resultant measurement value on the display of Knox, since controlling a display device to display a particular information as desired by a game designer requires only routine skill in the art.

Re claim 2: Knox discloses that the passage includes first and second walls (Fig. 4) in facing relation and spaced apart from each other, and wherein each the

detection unit includes an emitter 26 (Fig. 4) disposed in the first wall to transmit an energy signal toward the second wall; and a detector 28, 30 (Fig. 4) disposed within the second wall substantially coincident with the emitter to detect the energy signal.

Re claim 3: Knox discloses that wherein the energy signal is in the form of an infrared signal (col. 3, lines 21-29).

Re claim 4: Knox discloses that the display includes at least one of an LED display and an LCD display (Fig. 5).

Re claim 7: Knox discloses that the surface includes a golf green (col. 8, lines 44-48) and the scale corresponds to speed values for the golf green (col. 1, lines 52-55; and col. 9, lines 25-31).

Re claim 10: Knox discloses that the display includes at least one of a decimal point (col. 7, line 17) and a detector indicator 38 (Fig. 5) to indicate detection of the object within the passage by the detection units (col. 7, lines 26-35).

Re claim 11: Knox discloses that the control unit includes a plurality of detector indicators 38 (Fig. 5) to indicate detection of the object within the passage by the detection units (col. 7, lines 26-35).

Re claim 12: since Knox discloses that more than one transmitter can be used in the passage (col. 3, lines 35-36), Knox obviously encompasses including a first pair of detection units and a second pair of detection units; and since positioning detection units in a particular area would have been well known and obvious matter of design choice. One of ordinary skill in the art would have found it obvious to dispose the first pair of detection units toward a first end of the passage and

separated by a first determined distance and a second pair of detection units toward an opposing end of the passage and separated by a second predetermined distance because positioning detection units in a particular area requires only routine skill in the art.

Re claim 13: Knox discloses that the processor includes a first interval module to measure elapsed time for the object to travel between the first pair of detection units; and a second interval module to measure elapsed time for the object to travel between the second pair of detection units (col. 3, lines 21-36).

Re claim 14: Knox discloses that the processor further includes an index module to determine an index value corresponding to a ratio of the elapsed times measured by the first and second interval modules; and a retrieval module to retrieve a corresponding value from a storage unit based on the index value, wherein the retrieved value serves as the resultant measurement value (Fig. 6; col. 6, lines 40-43; and col. 7, lines 26-35).

Re claim 15: Knox discloses that the values stored within the storage unit correspond to surface property values determined in accordance with prior surface measurements (Fig. 6; col. 6, lines 40-43).

Re claim 16: Knox discloses that the object includes a golf ball 22 (Fig. 2).

Re claims 17: since claim 17 discloses the same subject matter cited in claim 1, claim 17 are similarly rejected as explained in claim 1 above.

Re claim 18: since claim 18 discloses the same subject matter cited in claim 2, claim 18 is similarly rejected as explained in claim 2 above.

Re claim 19: since claim 19 discloses the same subject matter cited in claim 3,

claim 19 is similarly rejected as explained in claim 3 above.

Re claim 20: since claim 20 discloses the same subject matter cited in claim 4, claim 20 is similarly rejected as explained in claim 4 above.

Re claim 23: since claim 23 discloses the same subject matter cited in claim 7, claim 23 is similarly rejected as explained in claim 7 above.

Re claim 26: since claim 26 discloses the same subject matter cited in claim 10, claim 26 is similarly rejected as explained in claim 10 above.

Re claim 27: since claim 27 discloses the same subject matter cited in claim 13, claim 27 is similarly rejected as explained in claim 13 above.

Re claim 28: since claim 28 discloses the same subject matter cited in claim 14, claim 28 is similarly rejected as explained in claim 14 above.

Re claim 29: since claim 29 discloses the same subject matter cited in claim 15, claim 29 is similarly rejected as explained in claim 15 above.

Re claim 30: since claim 30 discloses the same subject matter cited in claim 16, claim 30 is similarly rejected as explained in claim 16 above.

4. Claims 5-6, 8, 21-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knox et al (U.S. Patent No. 5,067,718) in view of Pelz (U.S. Patent No. 6,860,139).

The teachings of Knox have been explained above.

Re claim 5: Knox fails to disclose a guide to direct the object into the passage at a desired velocity. However, Pelz discloses an apparatus for measuring green-speed that uses a guide/green-speed reading apparatus 10 (Fig. 1). Therefore, in view

of Pelz, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Knox's measuring device by including a guide made up of a track member and stand in order to have a precise ball release mechanism to promote more consistent rolls for more accurate results.

Re claim 6: Knox fails to disclose a track member to receive and direct the object into the passage; and a stand to elevate a portion of the track member relative to the surface to enable the object to traverse the track member and attain the desired velocity. However, Pelz discloses that the guide comprises a track member/golf ball rolling ramp 12 (Fig. 1) and a stand/legs 14 (Fig. 1) (col. 4, lines 34-38). Therefore, in view of Pelz, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Knox's measuring device by including a guide made up of a track member and stand in order to have a precise ball release mechanism to promote more consistent rolls for more accurate results.

Re claim 8: Knox fails to disclose that the housing further include a level unit to indicate a slope of the surface. However, Pelz discloses an apparatus for measuring green-speed that uses level unit/level-vials 36, 37, 38 (Fig. 3) to indicate a slope of the surface (col. 5, lines 18-38). Therefore, in view of Pelz, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Knox's measuring device by including a level unit in order to detect slope and to give all balls the same initial energy and speed to provide more accurate and consistent readings.

Re claim 21: since claim 21 discloses the same subject matter cited in claim 5,

claim 21 is similarly rejected as explained in claim 5 above.

Re claim 22: since claim 22 discloses the same subject matter cited in claim 6, claim 22 is similarly rejected as explained in claim 6 above.

Re claim 24: since claim 24 discloses the same subject matter cited in claim 8, claim 24 is similarly rejected as explained in claim 8 above.

5. Claims 9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knox et al (U.S. Patent No. 5,067,718) in view of Cutter et al (U. S. Patent No. 5,387,903).

The teachings of Knox have been explained above.

Re claim 9: Knox discloses that the control unit includes a power source 94 (Fig. 5). However, Knox fails to disclose that the display includes a power indicator to indicate a power level of the power source. Cutter discloses a display that contains a power indicator/low-power indicator (col. 3, lines 12-15). Therefore, in view of Cutter, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Knox's measuring device by including a power indicator on the display in order to warn the user that the system voltage is low and that it is time to replace the battery.

Re claim 25: since claim 25 discloses the same subject matter cited in claim 9, claim 25 is similarly rejected as explained in claim 9 above.

Response to Arguments

6. Applicant's arguments filed 12/21/06 have been fully considered but they are not persuasive.

Applicant argues in page 14, last paragraph, through page 16, first paragraph, that Knox does not disclose the features of determining deceleration of the object through the passage due to the surface and producing based on the deceleration a resultant measurement value indicative of the surface property and in relation to a predetermined scale, wherein the resultant measurement value pertains to a total distance an object travels on the surface in response to an initial predefined reference velocity. It is noted that in col. 9, lines 19-26, Knox does disclose determining deceleration of the object through the passage and that the deceleration is constant for a given surface. Knox also discloses producing the resultant measurement value (e.g. the distance traveled by the ball) based on the deceleration and in relation to a predetermined scale (e.g. the distance between the two beams) (col. 9, lines 5-29).

In response to applicant's argument in page 16, second paragraph, since Knox discloses that more than one transmitter can be used in the passage (col. 3, lines 35-36), Knox obviously encompasses including a first pair of detection units and a second pair of detection units; and since positioning detection units in a particular area would have been well known and obvious matter of design choice. One of ordinary skill in the art would have found it obvious to dispose the first pair of detection units toward a first end of the passage and separated by a first determined

Art Unit: 3714

distance and a second pair of detection units toward an opposing end of the passage and separated by a second predetermined because positioning detection units in a particular area requires only routine skill in the art.

In response to applicant's argument in page 16, last paragraph, through page 17, lines 1-3, in col. 6, lines 40-45, Knox discloses that the ball speed is calculated and stored, and the speed is used to calculate the acceleration/deceleration corresponding to the specific surface, then the deceleration is employed to calculate the distance traveled by the ball on the given surface (col. 8, lines 67-68; col. 9, lines 1-28). The ball speed value is stored, retrieved and used for calculating the resultant measurement value, the average ball speed, the acceleration/deceleration and the traveled distance are together forming the resultant measurement value.

In response to applicant's argument in page 17, first paragraph, through page 18, refer to the 35 USC 103(a) rejections on claim 1 above.

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the date of this final action. Any response to this final action should be mailed to:

Box AF:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(571) 273-8300, (for formal communications; please mark
"EXPEDITED PROCEDURE").

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim T. Nguyen whose telephone number is (571) 272-4441. The examiner can normally be reached on Monday-Thursday from 8:30AM to 5:00PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai, can be reached on (571) 272-7147. The central official fax number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Art Unit: 3714

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kn

Date: March 30, 2007

A handwritten signature in black ink, appearing to read 'Kim T. Nguyen', with a horizontal line underneath.

Kim T. Nguyen
Primary Examiner
Art Unit 3714